Exhibit O *rtgxkqwun{'hkngf'cu Dkt. 718-4)''

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA ALEXANDRIA DIVISION

United States of America, et al.,

Plaintiffs,

V

Case No. 1:23-cv-00108 HON. LEONIE H. M. BRINKEMA

Google LLC,

Defendant.

EXPERT REBUTTAL REPORT OF WAYNE D. HOYER, PH.D.

FEBRUARY 13, 2023

FIGURE 4: COUNT OF C-LEVEL RESPONDENTS IN THE HIGHER-SPEND ADVERTISER SURVEY, BY ADVERTISING SPEND

Advertising Spend [A]	Count of C-Level Respondents [B]	
\$500,000 - \$1 million	5	
\$1 million - \$3 million	7	
\$3 million - \$7 million	12	
\$7 million - \$15 million	27	
\$15 million - \$30 million	13	
\$30 million - \$50 million	18	
\$50 million - \$100 million	18	
\$100 million - \$250 million	8	
\$250 million - \$500 million	9	
\$500 million or more	1	
Total	118	

Sources and Notes:

III.A.4. Professor Simonson's Final Sample May Not be A Representative Sample of U.S. Advertisers

65. Prof. Simonson claims that the inbound sample for all his surveys "was representative of the U.S. advertiser population accounting for the vast majority of spending." He then goes on to state that he instructed the survey administrator AP to "pre-screen respondents to ensure that they did not work for any companies that are parties to, were identified on initial disclosures in, or have

[[]A]: Simonson Backup, Appendix F.3 - Higher-Spend Advertiser Survey Raw Data, QS10.

[[]B]: Count of [A] by response to QS9. See Simonson Backup, Appendix F.3 - Higher-Spend Advertiser Survey Raw Data, QS9.

Simonson Report, Section III.B., ¶ 33. Prof. Simonson's sample of advertisers is limited to advertisers in the U.S., however, I understand that the relevant geographic market is worldwide and not limited to the U.S. See Lee Initial Report, Section IV.F., ¶ 388, ("Below, I describe why worldwide (excluding a limited number of regions) is a relevant geographic market for publisher ad servers, ad exchanges, and advertiser ad networks. Customers of ad tech products are located around the world, and transactions between open-web publishers and adverti[s]ers occur across country boundaries. Suppliers of ad tech products also have a global presence, and enjoy indirect network effects and scale benefits that are not limited to narrow geographic regions. Moreover, the effects of Google's conduct in the ad tech stack, and restrictions it has placed on the use of its products in the relevant product markets, have been imposed in countries around the world, and are not limited to customers within any single country.").

received subpoenas in connection with..." cases related to the current matter. ¹⁰⁷ Based on this pre-screening criteria, and as listed in Appendix I of the Simonson Report, there are a total of 580 companies that Prof. Simonson excluded from his surveys.

- of the Fortune 100 largest companies by revenue, of which five are in the top 10. 108 The exclusion of numerous companies that are top advertising spenders and revenue generators for Google brings into question Prof. Simonson's claim that his inbound sample was representative of the U.S. advertiser population, accounting for the vast majority of spending. To the extent that the excluded companies encompass some of the nation's largest advertisers, their absence makes the underlying sample unrepresentative of the broader U.S. advertiser population. Consequently, Prof. Simonson cannot draw conclusions about U.S. advertisers from his surveys. As a well-known treatise on the use of surveys in litigation notes, when "[t]he sampling frame excludes part of the target population...the survey's value depends on the proportion of the target population that has been excluded from the sampling frame and the extent to which the excluded population is likely to respond differently from the included population." Furthermore "[i]f the sampling frame does not include important groups in the target population, there is generally no way to know how the unrepresented members of the target population would have responded." 110
- 67. In fact, a closer review of the excluded companies suggests that Prof. Simonson's inbound sample was also unlikely to account for the vast majority of spending among U.S. advertiser population. In particular:
 - a. Cross-checking Prof. Simonson's list of excluded advertisers against the largest digital advertisers across 12 industries (based on ad-spend from 2021 to 2023), I find that six of the top ten retailers and 27 of the largest digital advertisers across various industries were

¹⁰⁷ Simonson Report, Section III.B., ¶ 34.

See Simonson Report, Appendix I; see also, "Fortune 100 Companies List (Updated 2023)," <u>Finasko</u>, accessed February 3, 2024, https://finasko.com/fortune-100-companies/ and "Fortune 500," Fortune, June/July 2023, https://fortune.com/ranking/fortune500/.

Shari Seidman Diamond, "Reference Guide on Survey Research," in *Reference Manual on Scientific Evidence*, 3rd ed. (Washington, DC: The National Academies Press, 2011), at 378.

See, Shari Seidman Diamond, "Reference Guide on Survey Research," Reference Manual on Scientific Evidence, 3rd ed. (Washington, DC: The National Academies Press, 2011), 379.

conclusion of the survey, to not be included in the final sample to be different from the other respondents,"¹⁵⁷ he presents no evidence that this is the case. In fact, there is a valid reason to expect that respondents who chose to exclude their responses from the survey differed systematically from those who chose to include their responses in the survey. If respondents in the Higher-Spend Advertiser Survey, for example, who chose to exclude their responses from the survey spent the same amount of time completing the survey as those who chose to include their responses, they would have spent an average of ten minutes—many spent considerably more time—reading the 38 questions on the screens, evaluating the response options, choosing the correct response options (or typing the correct answers to open-ended questions). After all that time and effort, the respondents must have had compelling reasons to *then* choose to exclude their responses. If they did not want their responses included in the survey earlier, they could have closed their browser on their phone or computer to exit the survey. Instead, they chose to have their responses excluded *immediately after learning* that Google sponsored the survey *and* the purpose of the survey was in connection with pending antitrust lawsuits in which the plaintiffs allege that Google engaged in anticompetitive conduct related to digital advertising.

- 83. It is entirely possible that respondents who chose to have their responses excluded did not want Google to have access to their responses (despite being told at the beginning that their responses would be anonymous). It is also possible that those respondents, upon learning that their responses would be used for an antitrust lawsuit involving Google's practices related to digital advertising, believed (correctly or incorrectly) that their responses would ultimately harm Google (a form of demand effect not wanting to provide answers that the survey's sponsor might not refer) or harm their own company. 158
- 84. Fortunately, there is a piece of evidence that allows one to evaluate Prof. Simonson's claim that respondents who chose to exclude their responses from the survey would be expected to have similar responses to those who chose to include their responses in the survey. We can evaluate

¹⁵⁷ Simonson Report, Section IV.B.2., ¶ 81.

See Itamar Simonson and Ran Kivetz, "Demand Effects in Likelihood of Confusion Surveys: The Importance of Marketplace Conditions," in *Trademark and Deceptive Advertising Surveys: Law, Science, and Design*, (Chicago: American Bar Association, 2012), 243–259, at 245–246 ("Even if respondents misinterpret what the experimenter has in mind, the mere fact that many study participants form similar beliefs as to what is expected of them may bias the results. That is, demand effects can have a significant impact on research findings whether or not they conform to any particular research hypotheses or study objectives").

whether the likelihood that a respondent would choose to exclude their responses upon learning about the sponsor and purpose of the survey was correlated with attributes of the respondent or the respondent's firm. The scant evidence available suggests that it was. Respondents whose companies spent less on advertising were *considerably more likely* to request to have their responses excluded than those at companies that spent more. In the Higher-Spend Advertiser Survey, 94 out of 603 respondents (15.6 percent of respondents who answered HSQF1) asked to have their responses excluded from the survey after they learned Google sponsored the survey in the context of an antitrust lawsuit. 159 By contrast, in the Lower-Spend Advertiser Survey 95 out of 402 respondents (23.6 percent) who answered LSQF1 chose to exclude their responses when they learned that Google was going to use their responses as part of an antitrust lawsuit. 160

85. That Lower-Spend advertisers requested that their results be excluded at a rate of 50 percent higher than Higher-Spend advertisers suggests that they had greater concerns about disclosing their responses when they learned that Google had sponsored the survey. This finding suggests that smaller advertisers were more likely to choose to have their responses excluded, which directly contradicts Prof. Simonson's unsubstantiated claim that "there is no reason to expect the respondents who chose, at the conclusion of the survey, to not be include in the final sample to be different from other respondents." 161

III.C. Data Suggest that Professor Simonson's Survey Respondents Did Not Pay Close Attention to the Questions or Instructions

86. A critical feature of a reliable survey, one that can provide insights into behavior, is that the respondents were attentive and responded carefully, ensuring their responses reflect their beliefs, actual behavior, or probable behavior in a hypothetical scenario. There is considerable evidence that Prof. Simonson's respondents were not attentive. Inattention among respondents can result in imprecise or noisy answers that fail to reflect respondents' true or actual behavior.

¹⁵⁹ Simonson Report, Exhibit 1.

¹⁶⁰ Simonson Report, Exhibit 37.

¹⁶¹ Simonson Report, Section IV.B.2., ¶ 81.

- 121. In addition, relying on only three to five respondents for each questionnaire can be problematic. A key question is how representative these very small samples of individuals and their responses are of the target population. For example, in each of his three surveys, in QS9, Prof. Simonson asks respondents to identify their job title/level and offers them 12 different response options (five of these have multiple titles included in the same answer option). Given that only three to five pretests were conducted for each survey, Prof. Simonson would not be able to ascertain whether survey respondents in each of 10 plus job titles are likely to possess the required knowledge and information to respond accurately to his questions. Assuming each subject from the pretests of each survey had a distinct job title, Prof. Simonson could at best verify this information for only the three to five unique job titles represented in his pretests.
- 122. Prof. Simonson also failed to provide any demographic or other information about pretest respondents. Without details like demographics, work responsibilities, or job titles, it is not possible to determine the representativeness of the sample, the relevance of the respondents' feedback or the validity of the conclusions drawn from the pretests.

Wayne D. Hoyer, Ph.D.

Wge Olly

Date: February 13, 2024

Expert Rebuttal Report of Wayne Hoyer (February 13, 2024)--Errata

Page	Paragraph	Footnote	Original	Corrected	Reason
43		137	Moreover, as discussed in Paragraph 115, Prof. Simonson did not ask this question until after the pretest subjects completed the entire survey.	Moreover, as discussed in ¶ 115, Prof. Simonson did not ask this question until after the pretest subjects completed the entire survey.	Туро
52	83		"provide answers that the survey's sponsor might not refer"	"provide answers that the survey's sponsor might not prefer"	Туро
54	89		Prof. Simonson included fictional or "decoy" responses in some of his survey questions "to assess the amount of 'false recognition' in the survey results, which may reflectmisremembering or inattention" 163	Prof. Simonson included fictional or "decoy" responses in some of his survey questions "to assess the amount of 'false recognition' in the survey results, which may reflectmisremembering or inattention ."163	Туро
56	92		"40 respondents (eight percent) of the respondents who"	"40 (eight percent) of the respondents who"	Туро
57	95		"(or, in some many questions, multiple correct response options)"	"(or, in some questions, multiple correct response options)"	Туро
59	97		Sources and Notes: [A]: Simonson Backup, Appendix F.3 - Higher-Spend Advertiser Survey Raw Data, QTime. [B]: Simonson Backup, Appendix G.3 - Lower-Spend Advertiser Survey Raw Data, QTime. [C]: Simonson Backup, Appendix H.3 - Agency Survey Raw Data, QTime. The table is reported in minutes and seconds from the variable, qtime. The sample used is the Analytical Sample (removing speeders and slow-pokes), with a sample size of 502 respondents in the Higher-Spend Advertiser Survey, 302 in the Lower-Spend Advertiser Survey, and 381 in the Ad Agency Survey.	Sources and Notes: [A]: Simonson Backup, Appendix F.3 - Higher-Spend Advertiser Survey Raw Data, qtime . [B]: Simonson Backup, Appendix G.3 - Lower-Spend Advertiser Survey Raw Data, qtime . [C]: Simonson Backup, Appendix H.3 - Agency Survey Raw Data, qtime . The table is reported in minutes and seconds from the variable, qtime. The sample used is the Analytical Sample (removing speeders and slow-pokes), with a sample size of 502 respondents in the Higher-Spend Advertiser Survey, 302 in the Lower-Spend Advertiser Survey, and 381 in the Ad Agency Survey.	Туро

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